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weight vinyl acetate, (b) a linear low density polyethylene, (c) a low density polyethylene, (d) a very low density polyethylene and (e) a high density polyethylene; and mixtures thereof;

(3) an ethylene vinyl acetate or polyolefin selected from the group consisting of (a) ethylene vinyl acetate containing 25-90% by weight ethylene and 10-75% by weight vinyl acetate, (b) a linear low density polyethylene, (c) a low density polyethylene, (d) a very low density polyethylene and (e) a high density polyethylene; and mixtures thereof; each of which is grafted with 0.05-3 % by weight of a carboxylic acid or an anhydride thereof; and

(4) aluminum trihydrate;

wherein component (1) comprises 5-15% by weight of the blend, component (2) comprises 10-20% by weight of the blend component (3) comprises 3-10% by weight of the blend, and component (4) comprises 60-70% by weight of the blend.

## **REMARKS**

The amendment to Claim 1 is intended to further distinguish the subject matter sought to be patented from the prior art references used to reject claims. Basis for the amendment can be found in the text of the claims as originally filed and in the Examples. As such it is felt that the amendment does not constitute the introduction of new matter. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached pages are captioned "Version with markings to show changes made."

At present, Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over a patent issued to Spelthann (U.S. 5,610,234), in view of a patent issued to Fry et al. (4,614,680). Reconsideration of this rejection is requested.

As amended, Claim 1 can now be readily distinguished from the cited references. As noted by the Examiner, the Spelthann ('234) reference does not

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teach or disclose how to achieve the addition of aluminum trihydrate above the upper limit of 50% by weight. As previously made of record and reassert herein, the grafted carboxylic acid or anhydride EVACO copolymer of the instant invention (page 5, lines 21-28) reacts with the aluminum trihydrate, ATH, thus compatibilizing the polymer/ATH blend. This results in achieving higher concentrations of the ATH and enhances flame retardence. This, in turn, allows for the replacement of PVC with a non-halogenated polymer system without sacrificing flame retardance.

Similarly, the Fry et al. reference does not teach or disclose how to achieve the addition of aluminum trihydrate at high loading levels. The Fry et al. reference involves the use of calcium carbonate filler exclusively and flame retardancy in the absence of halogenated polymer is not taught. In fact, the upper wear layer of the Fry et al. floor covering is PVC. As such, there is no rational basis for combing the teachings of the two references to obviate the instant claimed subject matter. Such a combination in view of the subject matter as a whole represents nothing more than pure hindsight prompted by Applicants' disclosure. It is further respectfully submitted that the numerical data presented in table 1 (i.e., heretofore unachievable loading levels of ATH in combination with excellent flame retardance verified by the Limited Oxygen Index (LOI) percentages being achieved) represents a showing of unexpected results sufficient to overcome even a *prima facie* showing of obviousness.

In view of the above amendment to Claim 1 and the above brief remarks, it is felt that there is a basis for the withdrawal of the §103 rejection of Claim 1 and such action is requested. Should the Examiner believe that an interview or other action in Applicants' behalf would expedite prosecution of the application, the Examiner is urged to contact Applicants' attorney by telephone at (302) 992-6824.

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Respectfully submitted,

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## Version with markings to show changes made

## In the claims:

Claim 1 has been amended as follows:

- 1.(Twice Amended) A flame retardant, halogen-free polymer composition comprising a blend of
- (1) ethylene vinyl acetate carbon monoxide terpolymer containing 30-90% by weight ethylene, 10-70% by weight vinyl acetate and 1-40% by weight carbon monoxide;
- (2) an ethylene vinyl acetate or polyolefin selected from the group consisting of (a) ethylene vinyl acetate containing 25-90% by weight ethylene and 10-75% by weight vinyl acetate, (b) a linear low density polyethylene, (c) a low density polyethylene, (d) a very low density polyethylene and (e) a high density polyethylene; and mixtures thereof;
- (3) an ethylene vinyl acetate or polyolefin selected from the group consisting of (a) ethylene vinyl acetate containing 25-90% by weight ethylene and 10-75% by weight vinyl acetate, (b) a linear low density polyethylene, (c) a low density polyethylene, (d) a very low density polyethylene and (e) a high density polyethylene; and mixtures thereof; each of which is grafted with 0.05-3 % by weight of a carboxylic acid or an anhydride thereof; and
- (4) [an inorganic filler] aluminum trihydrate;

wherein component (1) comprises 5-15% by weight of the blend, component (2) comprises 10-20% by weight of the blend component (3) comprises 3-10% by weight of the blend, and component (4) comprises 60-70% by weight of the blend [and wherein component (4) is aluminum trihydrate, magnesium hydroxide, calcium carbonate, calcinated clay, talcum, ammonium polyphosphate or a mixture thereof].

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